

In the Claims

Claims 1-35 are canceled.

36. [New] An electrical energy apparatus comprising:
- an interface configured to couple with a supply configured to provide electrical energy and an electrical load configured to consume electrical energy; and
- conditioning circuitry coupled with the interface and electrical storage circuitry configured to store electrical energy, wherein the conditioning circuitry comprises converter circuitry configured to modify an electrical characteristic of the electrical energy of the electrical storage circuitry and to supply the electrical energy of the electrical storage circuitry to the load after the modification and during an enabled mode of operation of the converter circuitry, wherein the converter circuitry is provided in a disabled mode of operation responsive to the presence of the supply providing the electrical energy.
37. [New] The apparatus of claim 36 wherein the converter circuitry is provided in the disabled mode of operation responsive to the presence of the supply providing electrical energy to the conditioning circuitry.
38. [New] The apparatus of claim 36 wherein the converter circuitry is provided in the disabled mode of operation responsive to the presence of the supply providing electrical energy to the electrical load.

39. [New] The apparatus of claim 36 further comprising a connector configured to removably couple with the interface, and wherein a coupling of the connector with the interface changes a mode of operation of the converter circuitry from the disabled mode of operation to the enabled mode of operation in the absence of the supply providing the electrical energy.

40. [New] The apparatus of claim 36 wherein the converter circuitry comprises boost converter circuitry configured to increase a voltage of the electrical energy of the electrical storage circuitry from a first voltage to a second voltage greater than the first voltage.

41. [New] The apparatus of claim 36 further comprising the electrical storage circuitry comprising an electrochemical storage device.

42. [New] The apparatus of claim 41 wherein the electrochemical storage device comprises a lithium cell having a lithium-mixed metal electrode.

43. [New] The apparatus of claim 36 wherein the conditioning circuitry comprises charge circuitry configured to apply electrical energy from the supply to the electrical storage circuitry.

44. [New] The apparatus of claim 43 wherein the charge circuitry is configured to monitor a quantity of electrical energy provided from the supply and to control a quantity of the electrical energy applied from the supply to the electrical storage circuitry responsive to the monitoring.

45. [New] An electrical energy apparatus comprising:
an interface configured to couple with electrical storage circuitry and a plurality of types of electrical loads configured to utilize electrical energy having different electrical characteristics, wherein the electrical storage circuitry is configured to store electrical energy and the interface is configured to supply electrical energy from the electrical storage circuitry to an electrical load coupled with the interface and comprising one of the plurality of types; and

conditioning circuitry coupled intermediate the interface and the electrical storage circuitry and configured to modify an electrical characteristic of the stored electrical energy prior to application of the stored electrical energy to the electrical load, wherein the conditioning circuitry is configured to implement the modification corresponding to the electrical characteristic of the electrical load.

46. [New] The apparatus of claim 45 wherein the electrical load coupled with the interface comprises an initial electrical load coupled with the interface at an initial moment in time, and further comprising an other electrical load coupled with the interface at an other moment in time and configured to utilize electrical energy having an electrical characteristic different than the electrical characteristic of the initial electrical load, and

wherein the power conditioning circuitry is configured to modify the electrical characteristic of the stored electrical energy according to the electrical characteristic of the other electrical load at the other moment in time.

47. [New] The apparatus of claim 45 further comprising a connector configured to couple with the electrical load and the interface and wherein the connector is configured to control the modification of the electrical characteristic of the stored electrical energy by the conditioning circuitry according to the electrical characteristic of the electrical load.

48. [New] The apparatus of claim 47 further comprising a plurality of the connectors configured to control the modification of the electrical characteristic of the stored electrical energy by the conditioning circuitry according to the different electrical characteristics of the different electrical loads.

49. [New] The apparatus of claim 45 wherein the conditioning circuitry is configured to modify the electrical characteristic comprising a voltage of the stored electrical energy.

50. [New] The apparatus of claim 45 further comprising the electrical storage circuitry comprising an electrochemical storage device.

51. [New] The apparatus of claim 50 wherein the electrochemical storage device comprises a lithium cell having a lithium-mixed metal electrode.

52. [New] The apparatus of claim 45 wherein the conditioning circuitry comprises charge circuitry coupled with the interface and the electrical storage circuitry, and wherein the charge circuitry is configured to control charging of the electrical storage circuitry, to monitor a quantity of electrical energy supplied from a supply coupled with the interface, and to adjust the charging of the electrical storage circuitry responsive to the monitoring.

53. [New] The apparatus of claim 45 wherein the conditioning circuitry comprises converter circuitry configured to adjust the electrical characteristic comprising voltage of the stored electrical energy, and wherein the converter circuitry is disabled responsive to the presence of a supply supplying electrical energy to the electrical load.

54. [New] An electrical energy apparatus comprising:
first means for providing electrical energy from a supply to an electrical load;
second means for providing electrical energy from electrical storage circuitry to the electrical load, wherein the second means further comprises means for receiving the electrical energy from the electrical storage circuitry, for modifying an electrical characteristic of the electrical energy received from the electrical storage circuitry, and for applying the electrical energy received from the electrical storage circuitry to the electrical load after the modifying; and
means for disabling the providing of the electrical energy from the electrical storage circuitry to the electrical load during the providing of the electrical energy from the supply to the electrical load.

55. [New] An electrical energy conditioning circuit comprising:
an interface configured to couple with a supply configured to supply electrical energy
and an electrical load configured to consume electrical energy; and
charge circuitry coupled with the interface and electrical storage circuitry configured
to store electrical energy, wherein the charge circuitry is configured to control charging of
the electrical storage circuitry, to monitor a quantity of electrical energy supplied from the
supply, and to adjust the charging of the electrical storage circuitry responsive to the
monitoring.

56. [New] The circuit of claim 55 wherein the charge circuitry is configured to
provide the charging of the electrical storage circuitry using electrical energy from the
supply.

57. [New] The circuit of claim 56 wherein the charge circuitry is configured to
monitor the quantity of electrical energy with respect to a threshold and to reduce a
quantity of the electrical energy used from the supply to charge the electrical storage
circuitry responsive to the quantity of the electrical energy from the supply exceeding the
threshold.

58. [New] The circuit of claim 57 further comprising a connector coupled with the
interface and configured to couple with at least one of the supply and the electrical load,
and wherein the connector is further configured to set the threshold.

59. [New] The circuit of claim 55 wherein the charge circuitry is configured to monitor electrical energy supplied from the supply to the electrical load and the electrical storage circuitry to monitor the quantity of the electrical energy.

60. [New] The circuit of claim 55 further comprising the electrical storage circuitry comprising at least one electrochemical storage device.

61. [New] The circuit of claim 60 wherein the electrochemical storage device comprises a lithium cell having a lithium-mixed metal electrode.

62. [New] An electrical energy supply method comprising:
providing electrical energy from electrical storage circuitry to an electrical load;
providing electrical energy from a supply to the electrical load;
providing electrical energy from the supply to the electrical storage circuitry to charge the electrical storage circuitry;
monitoring a quantity of electrical energy provided by the supply; and
adjusting a quantity of the electrical energy provided by the supply and used to charge the electrical storage circuitry responsive to the monitoring.

63. [New] The method of claim 62 wherein the monitoring comprises monitoring the quantity of the electrical energy provided from the supply to the electrical load.

64. [New] The method of claim 62 wherein the monitoring comprises monitoring the quantity of the electrical energy provided from the supply to the electrical storage circuitry.

65. [New] The method of claim 62 wherein the monitoring comprises monitoring the quantity of the electrical energy provided from the supply to the electrical load and the electrical storage circuitry.

66. [New] The method of claim 62 wherein the monitoring comprises comparing the quantity to a threshold, and wherein the adjusting comprises reducing the quantity responsive to the quantity exceeding the threshold.

67. [New] An electrical energy supply method comprising:
first providing electrical energy from a supply to an electrical load;
second providing electrical energy from electrical storage circuitry to the electrical load, the second providing comprising:
receiving electrical energy from the electrical storage circuitry;
modifying an electrical characteristic of the electrical energy received from the electrical storage circuitry; and
applying the electrical energy received from the electrical storage circuitry to the electrical load after the modifying; and

disabling the second providing of the electrical energy from the electrical storage circuitry to the electrical load during the first providing of the electrical energy from the supply to the electrical load.

68. [New] The method of claim 67 wherein the first providing and disabling occur at a first moment in time and the second providing occurs at a second moment in time different than the first moment in time.

69. [New] The method of claim 67 further comprising third providing electrical energy from the supply to the electrical storage circuitry to charge the electrical storage circuitry.

70. [New] The method of claim 69 further comprising monitoring a quantity of electrical energy provided by the supply, and adjusting a quantity of the electrical energy provided by the supply during the third providing and responsive to the monitoring.

71. [New] The method of claim 67 wherein the modifying comprises modifying the electrical characteristic comprising voltage of the electrical energy.

72. [New] The method of claim 67 wherein the modifying comprises modifying using converter circuitry configured to implement different modifications of the electrical characteristic of the electrical energy corresponding to a plurality of different electrical loads having a plurality of different electrical characteristics, and wherein the modifying

further comprises modifying according to the electrical characteristic of the electrical load receiving the electrical energy during the first and the second providings.

73. [New] The method of claim 67 further comprising providing the electrical storage circuitry.

74. [New] The method of claim 73 further comprising providing the electrical storage circuitry comprising a lithium cell having a lithium-mixed metal electrode.

75. [New] An electrical energy supply method comprising:
storing electrical energy using electrical storage circuitry;
modifying at least one electrical characteristic of the electrical energy from the electrical storage circuitry, wherein the modifying comprises modifying according to one of a plurality of possible different parameters;
applying the electrical energy from the electrical storage circuitry to an electrical load after the modifying; and
selecting the one of the parameters corresponding to the electrical load receiving the electrical energy.

76. [New] The method of claim 75 further comprising:
providing a plurality of different connectors corresponding to a plurality of different electrical loads; and

selecting one of the connectors corresponding to the electrical load receiving the electrical energy, and wherein the selecting the one of the connectors selects the one of the parameters.

77. [New] The method of claim 76 wherein the parameter comprises electrical resistance.

78. [New] The method of claim 75 further comprising providing the electrical storage circuitry.

79. [New] The method of claim 78 further comprising providing the electrical storage circuitry comprising a lithium cell having a lithium-mixed metal electrode.